

Having thus described the invention, what is claimed is:

1       1.           In an agricultural implement for dispensing agricultural product to the ground  
2 through a plurality of product dispensing units, the improvement comprising:  
3                   a control system for controlling a rate of flow of said agricultural product from at  
4 least a portion of said product dispensing units in response to data received by said control  
5 system relating to a prior application of said agricultural product.

1       2.           The agricultural implement of Claim 1 wherein said data relating to a prior  
2 application of said agricultural product identifies an application of said agricultural product  
3 made in a previous path of said agricultural implement so that said control system can reduce  
4 said rate of flow of said agricultural product from at least one of said product dispensing units to  
5 prevent overlap in the application of said agricultural product.

1       3.           The agricultural implement of Claim 2 wherein each of said product dispensing  
2 units are independently controlled by said control system so that any of said product dispensing  
3 units being positioned over a portion of the ground having said agricultural product dispensed in  
4 a previous pass of said implement can be turned off to prevent duplicative application of said  
5 agricultural product.

1       4.           The agricultural implement of Claim 3 wherein said control system is in  
2 communication with corresponding control systems of other similar agricultural implements  
3 operating in cooperation therewith for the application of said agricultural product to the ground,  
4 said control system being operable to control the flow rate of said product dispensing units to  
5 prevent a duplicative application of said agricultural product relative to a previous pass made by  
6 one of said other similar agricultural implements.

1       5.           The agricultural implement of Claim 2 wherein each said product dispensing unit  
2 is provided with a control valve operable to control the rate of flow of said agricultural product  
3 through the corresponding said product dispensing unit in a variable manner.

1 6. The agricultural implement of Claim 5 wherein said control system is operable to  
2 control the rate of flow of said agricultural product in response to a prescription map requiring  
3 variable application of said agricultural product to the ground.

1 7. In a control system for an agricultural implement for applying agricultural product  
2 to the ground thorough product dispensing units, the improvement comprising:  
3 said control system being operable to control a rate at which said agricultural  
4 product is being dispensed from each of said product dispensing units in response to data  
5 received by said control system relating to a prior application of at least one agricultural product  
6 to the ground.

1 8. The control system of Claim 7 wherein said data is stored on a non-volatile  
2 storage medium.

1 9. The control system of Claim 8 wherein said non-volatile storage medium is a  
2 PCcard.

1 10. The control system of Claim 8 wherein said data includes information from one or  
2 more of:  
3 a location at which the product is applied;  
4 a width dimension of said agricultural implement; and  
5 a time differential factor relating to the delivery of the agricultural product.

1 11. The control system of Claim 10 further including a GPS positioning system with  
2 which the location corresponding to the application of said agricultural product is tracked.

1 12. The control system of Claim 11 further including a receiver in communication  
2 with corresponding control systems of other similar agricultural implements operating in  
3 cooperation therewith for the application of said agricultural product to the ground, said control  
4 system being operable to control the flow rate of said product dispensing units to prevent a  
5 duplicative application of said agricultural product relative to a previous pass made by one of  
6 said other similar agricultural implements.

1 13. The control system of Claim 12 wherein each said product dispensing unit is  
2 provided with a control valve operable to control the rate of flow of said agricultural product  
3 through the corresponding said product dispensing unit in a variable manner.

1 14. The control system of Claim 13 wherein said control system is operable to control  
2 the rate of flow of said agricultural product in response to a prescription map requiring variable  
3 application of said agricultural product to the ground.

1 15. The control system of Claim 12 wherein said receiver is in communication with a  
2 central master control system which transmits data to said control system to provide information  
3 relating to a previous application of said agricultural product.

1 16. An agricultural product applicator implement comprising:  
2 a plurality of dispensing units for dispensing a product to a field;  
3 a flow control device associated with each respective said dispensing unit to  
4 control the rate of flow through each dispensing unit independently;  
5 control system operatively associated with said flow control devices to control the  
6 rate of flow through each corresponding said dispensing unit such that any one said dispensing  
7 unit can have a flow rate of said product therethrough at a rate which is different than any other  
8 of said dispensing units.

1 17. The implement of Claim 16 wherein said control system is selectively operable to  
2 reduce said flow rate variably from a maximum flow rate to zero.

1 18. The implement of Claim 17 wherein said control system is operable to reduce said  
2 flow rate to zero for any of said dispensing units overlapping a previous dispensing of said  
3 product by one or more of the dispense units.

1 19. The implement of Claim 18 in which the control system includes storage for  
2 storing information of where product was previously dispensed.

1 20. The implement of Claim 19 in which said control system receives information  
2 from a remote control that includes storage for information of where product was previously  
3 dispensed.

1 21. The implement of Claim 19 in which the control system adds information to the  
2 storage of where product is dispensed by the implement.

1 22. A method of applying agricultural product to the ground from an agricultural  
2 implement having a plurality of transversely oriented product dispensing units from which said  
3 agricultural product is dispensed and a control system for controlling a rate of product flow  
4 through said product dispensing units, comprising the steps of:  
5 controlling the rate of product flow through at least one of said product dispensing  
6 units corresponding to data received by said control system relating to a prior application of at  
7 least one agricultural product to the ground.

1 23. The method of Claim 22 wherein said controlling step includes the step of  
2 reducing said rate of product flow to zero for any of said product dispensing units that overlap a  
3 path of product on the ground that had been previously dispensed.

1 24. The method of Claim 23 further comprising the step of:  
2 receiving data indicative of prior application of said product to the ground from a  
3 remote source.

1 25. The method of Claim 24 wherein said remote source is a second agricultural  
2 implement working in conjunction with said first agricultural implement.

1 26. The method of Claim 23 wherein said data is obtained from a prescription map  
2 inputted into said control system.

1 27. The method of Claim 26 wherein said prescription map is received by said control  
2 system from a remote source.